

Abstract

A medical lead and method of treating a patient are provided. The medical lead comprises an electrically insulative tubular membrane, a resilient spring element 5 associated with the insulative membrane, and at least one electrode associated with the insulative membrane. In the preferred embodiment, the tubular membrane has a non-circular cross-sectional shape. The spring layer is configured to urge that insulative membrane into an expanded geometry. The medical lead is configured to be collapsed into a compact form for percutaneous delivery into the patient, thereby 10 obviating the need to perform an invasive surgical procedure on the patient. The body formed by these elements, when expanded, can be sized to fit within the epidural space of a patient. The patient can be treated by placing the medical lead into a collapsed state by applying a compressive force to the medical lead, percutaneously delivering the collapsed medical lead into the patient adjacent tissue 15 to be treated, and placing the medical lead into an expanded state by releasing the compressive force. In one preferred method, the stimulation lead is used to stimulate tissue, such as spinal cord tissue.